

Cite: Weiner G, Blum CL. Is the C2 slope a reliable indicator of decompensated spinopelvic alignment? A Sacro Occipital Technique perspective. Asia-Pac Chiropr J. 2026;7.1 <https://www.apcj.site/WeinerC2slope.pdf>

Prompt: Using clinical language write a 2 paragraph summary of this paper by Gilbert Weiner and Charles Blum 'Is the C2 slope a reliable indicator of decompensated spinopelvic alignment? A Sacro Occipital Technique perspective' and provide a 5 question quiz with answers.

Two-paragraph clinical summary: Is the C2 slope a reliable indicator of decompensated spinopelvic alignment? A Sacro Occipital Technique perspective critically examines whether the C2 slope can serve as a practical radiographic marker for global sagittal balance and decompensation within a Sacro Occipital Technique (SOT) framework. The authors argue that C2 slope, particularly the occiput-C2 relationship, correlates with pelvic tilt and may reflect compensatory mechanisms that influence pelvic orientation and overall spinal balance. They describe a mechanistic chain in which anterior translation or lordotic impairment at C2 can drive posterior pelvic tilt as a postural strategy to preserve visual and vestibular stability, with potential implications for corrective strategies in chiropractic care. The narrative integrates neuroanatomic pathways (cervical proprioception and reflexes) and the concept of the myodural bridge and dura-spinal mechanics to account for how C2 angulation might affect dural tension, CSF dynamics, and downstream postural adaptations, including those observed in SOT practice. The paper concludes that assessing C2 alignment may add value to full-spine evaluations and could influence decisions around pelvic correction, though it calls for further clinical investigation to determine impact on stability and durability of adjustments.

From a methodological standpoint, the authors outline radiographic techniques for measuring C2 slope and pelvic tilt on standard lateral views, emphasizing a practical one-degree-accurate assessment framed within routine imaging. They discuss the MDB and dura-spinal interfaces as potential mediators of the C2-pelvis relationship, proposing that abnormal C2 angulation could transmit deleterious forces along the dura and supportive ligaments, with possible consequences for cranial-pelvic balance and exercise of chiropractic interventions. The discussion integrates historical chiropractic concepts (SOT-Lovett factors) with contemporary neuroanatomic mechanisms, and it raises clinically actionable questions about whether pre-emptive evaluation of C2 alignment should precede pelvic category corrections, or whether remediation of cervical alignment could enhance postural stability and longevity of spinal adjustments.

Five quiz questions with answers:

1. Which radiographic relationship is central to the paper's clinical question?

- Answer: The relationship between C2 slope (occiput-C2 angle) and pelvic tilt (PT) as a marker of global spinal balance.

2. What anatomical structure is highlighted as potentially mediating the C2–pelvis relationship through its connection to the dura?

- Answer: The myodural bridge (MDB).

3. According to the paper, what reflexes are proposed to contribute to pelvic positioning in response to cervical alignment changes?

- Answer: ATNR (Asymmetrical Tonic Neck Reflex), STNR (Symmetrical Tonic Neck Reflex), CCR (cervicocollic reflex), vestibulospinal reflexes, Spinal Galant reflex, and cervicolumbar reflex.

4. How do the authors propose to measure C2 slope and pelvic tilt in a clinical setting?

- Options: a) Through MRI-based dynamic spinal kinematics only b) Using standard lateral radiographs with defined angular measurements c) By clinical palpation alone

- Answer: b) Using standard lateral radiographs with defined angular measurements

5. What is a key clinical implication discussed in the paper regarding the sequence of correction?

- Answer: The paper raises the question of whether evaluating and potentially addressing C2 alignment prior to pelvic category correction could enhance stability and durability of chiropractic adjustments, though it calls for further investigation.